

Proposed Changes to the 2005 Building Energy Efficiency Standards

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Description

The proposed change would change the language in the 2001 Nonresidential Standards relating to portable lighting in order to implement a clearer, simpler and more enforceable version of the current language. The proposal is to take portable lighting out of the standards as included in the Installed (Actual) LPD, and modify the Allowed LPD values for offices. Assuming that the current Office Allowed LPDs are maintained:

- For the Complete Building Approach: Set the Complete Office LPD to 1.0 watt/sf.
- For the Area Category Approach: Create a category designated "Offices > 250 sf" which has an Allowed LPD of 1.1 watts/sf and another category for "Offices = or < 250 sf" which has an Allowed LPD of 1.3 watts/sf.
- For the Tailored LPD Approach: Specify that the Allowed LPD for office spaces shall be reduced by 0.2 watts/sf in enclosed offices = or < 250 sf.

(If the Allowed LPDs for office occupancies are to be reduced by, for example, 0.1 watt/sf as compared with the 2001 Standards, then all the values above would be reduced accordingly.)

Create an Exception, with the same language as in the current documentation, that large offices could be allowed the same Allowed LPD as small offices if a licensed designer passes the "adequate lighting" test with all the 2001 requirements intact.

Benefits

The proposed change will make the standards considerably easier to show compliance, plan check, and most importantly, enforce in the field. The 2001 standards are virtually unenforceable with regard to portable lighting. They make a mockery of the ability of building departments to enforce the standards by essentially requiring field inspections for task lighting in offices long after final inspection has been completed. The proposed change will make the standards simpler, clearer and much more enforceable – in short, more credible. And by doing so, there is a strong possibility that there will be energy savings associated with the change as well.

Environmental Impact: None

Type of Change

Prescriptive Approach	Would change the prescriptive lighting approach for office occupancies as explained above.
Modeling	Would change the modeling of nonresidential buildings in the performance approach and therefore require appropriate changes (simplification) in the Nonresidential ACM Manual.

Measure Availability and Cost: Not Applicable

Useful Life, Persistence and Maintenance

By switching the Allowed LPD for offices back to general lighting only, the proposed change inherently has a much greater useful life and persistence as an energy measure than the current approach which assumes a level of task lighting first installed in the building.

Performance Verification

The 2001 Standards essentially require a performance verification by building departments which is virtually impossible. The proposed change takes away this unfeasible current requirement.

Cost Effectiveness: Not Applicable

Analysis Tools: Not Applicable

Relationship to Other Measures: None

Bibliography and Other Research: Not Applicable
